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ABSTRACT

The Computer-Based Junior High/Intermediate School Program of Transitional Bilingual Education was a federally funded program in its third year of operation in one intermediate school and two junior high schools in Manhattan (New York) in 1992-93. During this period, it served 244 native Spanish-speaking, limited-English-proficient (LEP) students in grades 6-9. Participating students received instruction in English as a second language (ESL), native language arts (NLA), science, mathematics, and social studies. Computer instruction and use were stressed, and computer-assisted instructional techniques were used in all instructional areas. Other program components included inservice teacher education, particularly to develop skills for teaching transitional bilingual education and ESL, and parental involvement activities, including workshops on high school choices, ESL, computer literacy, and school volunteering. The project met its objectives for ESL, science instruction, computer use, one level of staff development, and parental skill and knowledge development. It failed to meet its objectives for social studies instruction, English reading, a second level of staff development, and parental involvement toward becoming effective school volunteers. Achievement of the objectives for mathematics instruction and teacher performance could not be assessed due to the inadequacy of measurement techniques. (MSE)

ED 370 408

OER Report

Computer-based Junior High/Intermediate School
Program of Transitional Bilingual Education
Community School District 3, Manhattan
Grant T003A00148
FINAL EVALUATION REPORT
1992-93

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Computer-based Junior High/Intermediate School
Program of Transitional Bilingual Education
Community School District 3, Manhattan
Grant T003A00148
FINAL EVALUATION REPORT
1992-93

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EXECUTIVE SUMMARY

The Computer-based Junior High/Intermediate School Program of Transitional Bilingual Education was a Title VII program in its third year of operation at Intermediate School 44 and Junior High Schools 54 and 118 in Community School District 3, Manhattan.

During the 1992-93 school year, the project served a total of 244 Spanish-speaking students of limited English proficiency (LEP) in grades six through nine. This represented a decrease of 18 students from the previous year.

Participating students received instruction in English as a second language (E.S.L.), native language arts (N.L.A.), and the content areas. Computer instruction and use were stressed, and computer-assisted techniques were used in all instructional areas.

Staff development was an important component, and staff were encouraged to continue their education by attending university courses. Workshops offered to staff dealt primarily with transitional bilingual instructional methodologies and English-language instructional skills.

The project provided extensive parental involvement activities, including workshops covering topics such as high school choices, E.S.L., and computer literacy. The project provided special training to parents in order for them to become effective school volunteers. Parental attendance, however, was low.

Computer-based Junior High/Intermediate School Program of Transitional Bilingual Education met its objectives for E.S.L.; the content areas of science and computer-use; staff development for completion of three college credits, transitional bilingual instructional methodologies, and enhanced English language instructional-skills; and parental skills and knowledge. The project failed to meet its objectives for the content areas, reading in English, staff development for completion of six college credits, and parental involvement toward becoming effective school volunteers. The Office of Research, Evaluation, and Assessment (OREA) could not evaluate the content area objective in mathematics because the pre/post mandated tests were incompatible. The staff development objective for assessment of teacher performance could not be evaluated because the proposed criterion-referenced tests were not developed.

The conclusions, based on the findings of this evaluation, lead to the following recommendations to the project:

- Provide OREA with the necessary data to evaluate all objectives.
- Develop criterion-referenced tests in order to assess teacher performance.
- Increase efforts to involve parents in project activities and as school volunteers.

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I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment's (OREA's) evaluation of the Transitional Bilingual Education Title VII project, Computer-based Junior High/Intermediate School Program of Transitional Bilingual Education.

PROJECT CONTEXT

The project operated at Intermediate School (I.S.) 44 and Junior High Schools (J.H.S.s) 54 and 118 in Community School District (C.S.D.) 3 in Manhattan. The community in which the schools were located was, for the most part, Latino and African-American. Most of the residents in the area were recent immigrants who were highly mobile and had low family incomes.

The student population at the three sites resembled that of the surrounding community. I.S. 44 had an enrollment of 1,558 students: 40.7 percent were Latino, 41.2 percent African-American, 14.8 percent European-American, 3.1 percent Asian-American, and 0.2 percent Native American. Of the total population, 9.3 percent were classified as of limited English proficiency (LEP), and 70.1 percent were eligible for free lunch.

J.H.S. 54 had a total enrollment of 1,718 students. Of these students, 56.8 percent were African-American, 34.4 percent Latino, 6.9 percent European-American, 1.6 percent Asian-American, and 0.3 percent Native American; 16.3 percent were LEP, and 77.3 percent were eligible for free lunch.

The demographics at J.H.S. 118 were similar to the other sites. Of a total enrollment of 1,451, 47.1 percent were African-American, 45.4 percent Latino, 6.1

percent European-American, 1.2 percent Asian-American, and 0.1 percent Native American.* Of these students, 12.2 percent were LEP. The proportion of students eligible for the free-lunch program was 67.4 percent, slightly lower than at the other sites.

All three sites had well-equipped computer labs with an average of 30 computers per room. Project students received computer instruction and had open access to the computer labs during the day and after school. Computer classes were offered before and after school hours specifically for project students. Computers were also evident in all of the classrooms and teachers used computer-assisted instruction (C.A.I.) extensively.

STUDENT CHARACTERISTICS

The Computer-based Junior High/Intermediate School Program served Spanish-speaking LEP students in sixth through ninth grade. Scores at or below the 40th percentile on the Language Assessment Battery (LAB) determined LEP status. Other criteria for project participation were low native language literacy, teacher and counselor recommendations, and parental request. Students' desire to participate was also taken into consideration.

The project served a total of 244 students. Fifty-six were in sixth grade, 79 in seventh grade, 92 in eighth grade, and 17 in ninth grade. One hundred and fourteen (46.7 percent) were male and 130 (53.2 percent) female. One hundred and ninety-eight (81.1 percent) had Spanish as their home language. Ninety-six (39.3 percent)

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* Percentages do not equal 100 due to rounding.

of the participating students were born in the Dominican Republic; almost as many (89, or 36.4 percent) were born in the United States but were not proficient in English. (See Table 1 for students' countries of origin.) All of the project students were eligible for the free-lunch program.

Needs Assessment

C.S.D. 3 conducted an extensive needs assessment of the target student population and their families before undertaking the project. Their findings indicated that the project needed to provide intensive English as a second language (E.S.L.) instruction for LEP students, staff development for improving bilingual teaching skills, and E.S.L classes and workshops to improve parents' knowledge of English and increase their involvement in their children's education.

TABLE 1

Students' Countries of Origin

Country	Number of Students
Dominican Republic	96
United States	89
Puerto Rico	11
Mexico	9
Ecuador	5
Honduras	4
Nicaragua	1
Guatemala	1
Unreported	28
Total	244

PROJECT OBJECTIVES

Student

- By the conclusion of the student development period, 300 LEP sixth, seventh, eighth, and ninth grade students will engage in activities that enable approximately 30 percent additional target pupils to master sufficient English language skills as assessed by scores on the New York City LAB test.

- Seventy percent of the target pupils (40 Percent of last year's group who achieved this criterion and an additional 30 percent) to achieve statistically significant increased skills in reading in English, science, mathematics, and/or computer use as assessed by pre- and post-instruction scores on appropriate standardized content area tests.

Staff Development

By the conclusion of the staff development period, 45 bilingual sixth, seventh, eighth, and ninth grade teachers and paraprofessionals (approximately 20 of whom have participated in previous training, and 25 of whom received no prior training) will engage in activities that enable:

- Twenty-five percent of the trainees to complete at least six college credits (3 last year and 3 this year) in appropriate courses as assessed by an examination of college records.

- An additional 15 percent of the trainees to complete 3 college credits in appropriate courses as assessed by an examination of college records.

- Forty percent of the teacher trainees (not including those who achieved this criterion last year unless it was in a different content area) to achieve scores of 90 percent or better on program-developed criterion referenced tests related to content area instruction in science, mathematics, and computer education depending on the content area training.

- Fifty percent of the new teacher trainees to be able to utilize transitional bilingual instructional methodologies when working with target pupils as assessed by administrator and evaluation observation using program-developed checklists, and by an examination of the pre- and posttest scores of their pupils on the New York City LAB test (to be administered in conjunction with the pupil objectives).

- Fifty percent of the second year trainees to display further enhanced English language instructional skills assessed as indicated above.

Parental Involvement

By the conclusion of the parent development period, 150 parents of project LEP children will engage in activities that enable:

- Seventy percent of the parent participants to increase skills and knowledge in the areas in which they took instruction such as: E.S.L.; native language arts; high school equivalency; computer learning; home-based remediation and enrichment for students; how to make instructional materials from household items; basic intermediate and advanced conversational English for adults; and citizenship education as assessed by program-developed checklists administered on a pre- and post-instructional basis as well as professional observations.

- Fifteen percent of the parent participants to master skills sufficient for them to work as effective school volunteers as assessed by principal observation.

PROJECT IMPLEMENTATION

The Computer-based Junior High/Intermediate School Program provided instructional and support services to 244 Spanish-speaking LEP students during the 1992-93 school year. The main intent of the project was to provide LEP students with English and native language skills in conjunction with content area instruction.

I.S. 44 offered students instruction in mathematics, science, social studies, and computers for six periods a week. Grades six and seven were taught in English supplemented with Spanish for six periods per week. Grade eight students with more proficiency in English received content area instruction in English using an E.S.L. methodology, while less proficient students were instructed in Spanish.

J.H.S. 54 offered instruction to students in grades six through nine in mathematics, social studies, science, and computer instruction. All classes were held for six periods per week, and all used English supplemented with Spanish.

J.H.S. 118 offered instruction to students in grades six through nine in the

same content areas as J.H.S. 54. The classes were held for six periods per week; three periods were taught in English with an E.S.L. methodology and three periods in English supplemented with Spanish.

All sites provided participants with after-school instruction in computers. The project provided students with multicultural activities and field trips to increase awareness of American and native cultures.

The project offered extensive services and activities for project parents. A series of instructional workshops covered such topics as parent/child science activities, mathematics, high school orientation, and computer demonstrations.

Staff development included tuition reimbursement for staff members who took relevant college courses. Staff members were also encouraged to complete at least three college credits per semester.

The project designed staff development workshops in order to increase staff members' multicultural awareness and the quality of service for project students. Topics included the whole language approach, cooperative learning, second language acquisition, and E.S.L. methodologies. During one particular session, staff developers conducted a demonstration of sample lessons in which teachers acted as students. This proved to be an effective exercise.

Materials, Methods, and Techniques

Content area classes at all three sites were taught in English or Spanish with an E.S.L. methodology in all grades. Instruction in all content area subjects was a combination of teacher-directed and cooperative learning techniques as well as

individualized instruction. Computers were used as primary or supplemental tools for instruction. Audiovisual equipment reinforced instruction.

The project offered literacy, beginning, and intermediate levels of E.S.L. and literacy, beginning, intermediate, advanced, and advanced placement levels of N.L.A. Teacher-directed and cooperative-learning methodologies were used as well as peer tutoring, individualized instruction, and the whole language approach.

For a list of instructional materials used in the project, please see Appendix A.

Capacity building. Tax-levy funding will continue to pay for 25 percent of the cost of two bilingual coordinator positions.

Staff Qualifications

Title VII staff. All three bilingual coordinator positions were partly (75 percent) funded by Title VII and partly (25 percent) by tax levy. Two coordinators had master's degrees, and the third had a Ph.D. All were native speakers of Spanish and were teaching proficient* in the language.

The responsibilities of the three bilingual coordinators included organization and supervision of the program at each site, development of instructional units and activities for students and parents, staff selection and training, and providing OREA with the necessary information for project evaluation.

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*Teaching Proficiency (TP) is defined as the ability to use LEP students' native language in teaching language arts or other academic subjects. Communicative Proficiency (CP) is defined as a non-native speakers basic ability to communicate and interact with students in their native language.

Other staff. Tax-levy funds paid the salaries of the project director and 19 teachers. All staff members held New York State certification in the areas in which they taught. For a description of their degrees, certifications, and language competencies, see Table 2.

TABLE 2

Qualifications of Staff Not Funded by Title VII

Position Title	Degree(s)	Certificate(s)/ License(s)	Language Competence
1 Project Director 19 Teachers	16 M.A. 4 M.S.	3 Spanish 3 E.S.L. 4 Mathematics 1 Social Studies 8 Bil. Common Branches 1 Physical Education	16 Spanish (TP) 2 Spanish (CP)

Staff development. The project offered a series of workshops for teachers of participating staff. The C.S.D.'s bilingual office sponsored the weekly and/or monthly activities, which included topics such as curriculum aspects of computer programs, the whole language and thematic approaches, cooperative learning, and goals of E.S.L. instruction.

Instructional Time Spent on Particular Tasks

The project did not submit examples of class schedules.

Length of Time Participants Received Instruction

Students had a mean of 5.0 years (s.d.=1.0) of education in a non-English-

speaking school system and 2.0 years (s.d.=1.0) of education in the United States. The median length of time that students participated in the project was 10 months.

Activities to Improve Pre-Referral Evaluation Procedures for Exceptional Students

At all three sites, teachers referred those students who were identified as being in need of special services to the School-Based Support Team (S.B.S.T.). At J.H.S. 54, all members of the team were bilingual. At I.S. 44, the S.B.S.T. did not include a native Spanish-speaker but did have a Spanish-proficient member. J.H.S. 118 did not have the services of a bilingual counselor or social worker on their S.B.S.T., so students were referred to the district's Committee on Special Education (C.S.E.) for bilingual assessment.

Gifted students were identified by grades and teachers' opinions and were offered enrichment classes in mathematics, science, and computer use.

PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES

The project sponsored various meetings and workshops for parents. Some of the topics included helping children learn, how to choose the best high school, keeping in contact with the teacher, and how to use a computer. At I.S. 44, parents participated in an after-school computer literacy program and were offered weekly E.S.L. lessons. In addition to these activities, the project staff was in frequent contact with the students' parents through letters and phone calls.

II. EVALUATION METHODOLOGY

EVALUATION DESIGN

Project Group's Educational Progress as Compared to That of an Appropriate Non-Project Group

OREA used a gap reduction design to evaluate the effect of bilingual language instruction on project students' performance on standardized tests. Because of the difficulty in finding a valid comparison group, OREA used instead the groups on which the tests were normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.1. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

Applicability of Conclusions to All Persons Served by Project

Data were collected from all participating students. (There were no pretest data on students who entered the program late; therefore, posttest data for them will serve as pretest data for the following year.) Instruments used to measure educational progress were appropriate for the students involved. The LAB, The Degrees of Reading Power Test (D.R.P.), and the Metropolitan Achievement Test (MAT)-Math (replaced by the California Achievement Test [CAT] in spring 1993) are used throughout New York city to assess the growth of English, Spanish, and mathematics skills in populations similar to those served by the Computer-based Junior High/Intermediate School Program of Transitional Bilingual Education.

INSTRUMENTS OF MEASUREMENT

OREA compared pre- and posttest scores on the LAB to assess the E.S.L. objective. The D.R.P. was used to assess the English reading content area objective. The mathematics objective posed special difficulties for evaluation. In the year under review, the Board of Education adopted the Concepts and Applications subtest of the (CAT) as a citywide mathematics test. The CAT differs from the MAT in approach and emphasis and cannot be used as a posttest in languages other then English because of multiple unreconciled variations from the MAT pretest. For the evaluation of bilingual programs in the year under review, therefore, OREA is reporting CAT scores without attempting to compute pre/post gains. In the following year, both pre- and posttest scores will be fully comparable.

All students were tested at the appropriate grade level. The language of the LAB was determined by the test itself, whereas the language of the MAT-Math and CAT were determined by the language in which the student received instruction in mathematics. The content area objectives for science and computer use were assessed through final course grades, as specified.

According to the publishers' test manuals, all standardized tests used to gauge project students' progress are valid and reliable. Evidence supporting both content and construct validity is available for the LAB. Content validity is confirmed by an item-objective match and includes grade-by-grade item difficulties, correlations between subtests, and the relationship between the performance of students who are native speakers of English and students who are LEP. To support reliability, the

Kuder-Richardson Formula 20 (KR20) coefficients and standard errors of measurement (SEM) are reported by grade and by form for each subtest and total test. Grade reliability coefficients, based on LEP students on the English version, ranged from .88 to .96 for individual subtests and from .95 to .98 for the total test.

Evidence is available to support the validity of the D.R.P. The D.R.P. is an objective-referenced test, with the single outcome objective being the comprehension of expository English text. Criterion validity of the D.R.P. is demonstrated by the presence of a correlation (r=.90) with results from a criterion-referenced instrument, the Word Completion Test. To support reliability, the KR20 coefficients and SEM are reported by grade. Reliability coefficients ranged from .91 to .97 for students in the second through the tenth grade; the SEM ranged from 2.6 to 3.8 raw score units.

For the Math Concepts and Applications Subtest of the CAT, content validity was determined by comparing the content descriptions and the test items with particular curriculum objectives. The KR20 was used as a measure of internal consistency. The SEM is also reported in order to indicate the range within which students' true scores are likely to fall. For the Math Concepts and Applications subtest given in second through eighth grade, the number of items ranged from 42 to 50. KR20 coefficients ranged from 0.88 to 0.91; SEM ranged from 2.55 to 3.09 raw score units.

DATA COLLECTION AND ANALYSIS

Data Collection

To gather qualitative data, an OREA evaluation consultant carried out on-site and telephone interviews of the project director several times during the school year and also observed two classes on each of two visits. The project evaluator collected the data and prepared the final evaluation report in accordance with the New York State E.S.E.A. Title VII Bilingual Education Final Evaluation Report format, which was adapted from a checklist developed by the staff of the Evaluation Assistance Center (EAC) East in consultation with the Office of Bilingual Education and Minority Language Affairs (OBEMLA).

Proper administration of instruments. Qualified personnel received training in testing procedures and administered the tests. Test administrators followed guidelines set forth in the manuals accompanying standardized tests. Time limits for subtests were adhered to; directions were given exactly as presented in the manual.

Testing at twelve-month testing intervals. Standardized tests were given at 12-month intervals, following published norming dates.

Data Analysis

Accurate scoring and transcription of results. Scoring, score conversions, and data processing were carried out by the New York City Public Schools Scan Center. Test scoring and score conversions were accomplished electronically. Data were provided by the Scan Center and analyzed in the Bilingual, Multicultural, and Early Childhood Evaluation Unit of OREA. Data collectors, processors, and analysts were unbiased and had no vested interest in the success of the project.

Use of analyses and reporting procedures appropriate for obtained data. To assess the significance of students' achievement in English, Spanish, and reading in English, OREA computed a correlated *t*-test on LAB and D.R.P. N.C.E. scores. The *t*-test determined whether the difference between pre- and posttest scores was significantly greater than would be expected from chance variation alone.

The only possible threat to validity of any of the above instruments might be that LAB norms were based on the performance of English Proficient (EP) rather than LEP students. Since OREA was examining gains, however, this threat was inconsequential—the norming group would not have affected the existence of gains, although they would appear smaller than if LEP norms had been used.

III. FINDINGS

PARTICIPANTS' EDUCATIONAL PROGRESS

The Computer-based Junior High/Intermediate School Program of Transitional Bilingual Education carried out all instructional activities specified in its original design.

Participants' Progress in English

During the school year, project students received extensive instruction and practice in English.

The evaluation consultant visited J.H.S. 54 and I.S. 44 and observed one E.S.L. class at each school. J.H.S. 54 offered E.S.L. instruction in the content areas, and the consultant observed an E.S.L./geography class at this school. The classroom was spacious and well-lit, with students' work displayed around the room. The class was held for two consecutive periods. There were 18 students of varying E.S.L. proficiency, from literacy to advanced, and one teacher. There was no paraprofessional. The students were using a worksheet and textbook to identify states on a map. The students also had to write a description of the particular state they were locating. The teacher used a computer to supplement instruction; students also used the computer individually.

Instruction was individually paced. The students worked independently, and the teacher walked around the room helping each student. Once the students had finished the worksheet and identified all of the states, they went on to a teacher-led game of identifying states by their capitals. Participation was good, although

students communicated amongst themselves in Spanish.

The evaluation consultant also observed an E.S.L. class at I.S. 44. Because of overcrowding, the class was held in a makeshift classroom in the boys' locker room. The teachers had decorated the walls with the students' work and many posters in an attempt to make the area look more like a classroom. A map of the world was displayed with the students' pictures placed over their countries of origin. Also posted was a paragraph written in English by the student detailing his or her background. Loud music came from a music class in an adjacent room. There were 20 students in the class, with two teachers team-teaching. Student proficiency levels ranged from intermediate to advanced. The teaching methodology was cooperative learning, and students were working in groups of four. Those more proficient in English were encouraged to help other students.

The evaluation objective for English as a second language was:

- By the conclusion of the student development period, 300 sixth, seventh, eighth, and ninth grade students will engage in activities that enable approximately 30 percent additional target pupils to master sufficient English language skills as assessed by scores on the New York City LAB test.

There were complete pre- and posttest scores on the LAB for 165 project students from grades six through nine. (See Table 3.) Forty-two percent of the students achieved a gain in the LAB. Gains for these students (3.4 N.C.E.s) were statistically significant.

The project met its E.S.L. objective. In the previous year, this objective was also met.

TABLE 3

Pretest/Posttest N.C.E. Differences on the
Language Assessment Battery (LAB), by Grade

Grade	Total number of project students	Number of students for whom data were available	Pretest		Posttest		Difference		*t* value
			Mean	S.D.	Mean	S.D.	Mean	S.D.	
6	56	43	13.48	19.96	15.86	16.30	2.37	15.62	1.00
7	79	53	9.47	12.40	13.41	17.47	3.94	11.81	2.43*
8	92	67	7.52	11.73	11.26	14.53	3.74	7.00	4.38*
9	17	2	1.00	.00	1.00	.00	.00	.00	.00
Total	244	165	9.62	14.59	13.03	15.97	3.40	11.27	3.88*

*$p < .05$

- Overall, project students made significant gains on the LAB.

LEP Participants' Progress in Native Language

Approximately 40 percent of the participating students lacked literacy skills in Spanish at the beginning of the school year. Instruction in N.L.A. was offered four or five periods per week at literacy, beginning, intermediate, advanced, and advanced placement levels at all three sites. Lessons at beginning levels stressed basic grammar and usage and focused on simple reading and writing tasks. Higher levels of instruction were infused with a content-based approach.

Teaching methodologies included individualized instruction, peer and group instruction, and individual reading and writing projects.

The project did not propose a specific objective for N.L.A.

LEP Participants' Academic Achievement

All content area subjects incorporated E.S.L. methodologies and instruction stressed cooperative learning. Project staff also used individualized tutoring, peer tutoring, and computer-assisted instruction (C.A.I.).

The OREA evaluation consultant visited J.H.S. 54 and observed the after-school computer class held four times a week from 3:15 to 5:00 p.m. in the school's computer lab. There were a total of 40 computers in the lab, six of which were bought by the project. Twenty students were present in the class. The students had special assignments according to their levels of proficiency. They worked with the computer programs LogoWriter, Where in the World is Carmen Sandiego?, and Space Quark.

The evaluation objective for content area subjects was:

- By the conclusion of the student development period, 300 sixth, seventh, eighth, and ninth grade students will engage in activities that enable approximately 70 percent of the target pupils (40 percent of last year's group who achieved this criterion and an additional 30 percent) to achieve statistically significant increased skills in reading in English, science, mathematics, and/or computer use as assessed by pre- and post-instruction scores on appropriate standardized content area tests.

Science. Final grades were used to assess the science and computer components of this objective. One hundred percent of the students passed the science component, and 93 percent passed the computer instruction component.

Reading. The Degrees of Reading Power (D.R.P) test was used to assess reading skills in the English component. There were complete D.R.P. pre- and posttest scores for 55 of the participating students. Of these students, 56 percent showed a gain. (See Table 4.)

Mathematics. CAT scores were available for 58 students in grades six through nine. The mean N.C.E. score for all project students was 31.95 (s.d.=16.16). For reasons explained in the chapter on Evaluation Methodology, OREA did not attempt to compute pre-/posttest gains.

The project met its content area objective for science and computers, did not meet it in English reading, and OREA was unable to evaluate it in mathematics. Last year, the project failed to meet the objective in English reading or mathematics and OREA was unable to evaluate it for science and computers.

TABLE 4

Pretest/Posttest N.C.E. Differences on the
Degrees of Reading Power (D.R.P.) Test, by Grade

Grade	Total number of project students	Number of students for whom data were available	Pretest		Posttest		Difference		*t* value
			Mean	S.D.	Mean	S.D.	Mean	S.D.	
6	56	14	24.64	12.55	20.00	6.51	-4.64	10.28	-1.69
7	79	15	27.33	13.88	33.06	12.06	5.73	8.85	2.51*
8	92	26	30.96	13.49	35.76	11.92	4.80	11.70	2.09*
9	17	0	--	--	--	--	--	--	--
Total	244	55	28.36	13.93	31.01	12.54	2.65	11.30	1.74

*$p<.05$

- Seventh and eighth grade students made significant gains on the D.R.P. test.

FORMER PARTICIPANTS' ACADEMIC PROGRESS IN ENGLISH LANGUAGE CLASSROOMS

The project did not mainstream any students last year.

OVERALL EDUCATIONAL PROGRESS ACHIEVED THROUGH PROJECT

Mainstreaming

The project did not mainstream any students in the year under review.

Grade Retention

Of the 244 project students, 5 (2.1 percent) were reported to have been retained in grade. The project did not provide data on grade retention last year, nor did the project formulate a specific objective in this area.

Attendance

The project had better attendance rates than the schoolwide rates at two sites. The project attendance rate at J.H.S. 54 was 92.3 percent; the schoolwide rate was 87.5 percent. J.H.S. 118 had a project attendance rate of 90.3 percent, the schoolwide rate was 84.6 percent. At I.S. 44, however, project students' attendance rate of 83.5 percent was lower than mainstream students' 88.7 percent.

The project did not propose a specific objective for attendance.

Placement in Gifted and Talented Programs

No project students were placed in specific programs for the gifted and talented. Students showing ability in mathematics were placed in a sequential mathematics course. Students showing special interest in and ability with computers were given advanced assignments in addition to regular class assignments.

STAFF DEVELOPMENT OUTCOMES

The project offered a series of workshops to participating staff. These included presentations on how to use computers as aids to teaching and how students learn through computers.

C.S.D. 3's bilingual office sponsored weekly and monthly activities, which included workshops on the curriculum aspects of computer programs, the whole language technique, the thematic approach, cooperative learning, and goals of E.S.L. instruction.

The project encouraged the participating teachers and paraprofessionals to continue their education and reimbursed tuition for completed college/university credits.

The evaluation objectives for staff development were:

- By the conclusion of the staff development period, 45 bilingual sixth, seventh, eighth, and ninth grade teachers and paraprofessionals (approximately 20 of whom have participated in previous training, and 25 of whom received no prior training) will engage in activities that enable 25 percent of the trainees to complete at least six college credits (3 last year and 3 this year) in appropriate courses as assessed by an examination of college records.

The project director reported that 20 percent of the project teacher-trainees attended college/university courses and completed six credits (three last year and three this year). This fell slightly short of the objective.

The project did not meet its objective for trainee completion of six college/university credits, as was also the case in the previous year.

- By the conclusion of the staff development period, 45 bilingual sixth, seventh, eighth, and ninth grade teachers and paraprofessionals (approximately 20 of whom [illegible] participated in previous training, and 25 of whom received no prior training) will engage in activities that enable an additional 15 percent of the trainees to complete 3 college credits in appropriate courses as assessed by an examination of college records.

The project director reported that, of the total participating staff, 15 percent attended college/university courses and completed three credits. This was in addition to those who completed six credits of college courses over two years.

The project met its objective for staff completion of three college credits, as it did last year.

- By the conclusion of the staff development period, 45 bilingual sixth, seventh, eighth, and ninth grade teachers and paraprofessionals (approximately 20 of whom have participated in previous training, and 25 of whom received no prior training) will engage in activities that enable 40 percent of the teacher trainees (not including those who achieved this criterion last year unless it was in a different content area) to achieve scores of 90 percent or better on program-developed criterion-referenced tests related to content area instruction in science, mathematics, and computer education depending on the content area training.

At all three sites, project staff participated in the many workshops offered. The project, however, did not administer the required criterion-referenced test.

OREA was unable to evaluate the staff development objective for assessing teachers' performance on criterion-referenced tests, as was the case last year.

- By the conclusion of the staff development period, 45 bilingual sixth, seventh, eighth, and ninth grade teachers and paraprofessionals (approximately 20 of whom have participated in previous training, and 25 of whom received no prior training) will engage in activities that enable 50 percent of the new teacher trainees to be able to utilize transitional bilingual instructional methodologies when working with target pupils as assessed by administrator and evaluation observation using program-developed checklists, and by an examination of the pre- and posttest scores of their pupils on the New York City LAB test (to be administered in conjunction with the pupil objectives).

The project director reported that after extensive training, 100 percent of new teacher trainees were able to use transitional instructional methodologies when working with target pupils. Forty-two percent of the project students showed an increase in their mean scores from pre- to posttest on the LAB.

The project met the staff development objective for use of transitional bilingual instructional methodologies, as it did last year.

- By the conclusion of the staff development period,45 bilingual sixth, seventh, eighth, and ninth grade teachers and paraprofessionals (approximately 20 of whom have participated in previous training, and 25 of whom received no prior training) will engage in activities that enable 50 percent of the second year trainees to display further enhanced English language instructional skills assessed as indicated above.

The project director reported that 100 percent of the participating second-year trainees and teachers displayed enhanced English-language instructional skills.

The project met the staff development objective for enhanced English-language instructional skills, as it did last year.

CURRICULUM DEVELOPMENT OUTCOMES

Project staff developed, adapted, and/or translated a number of curriculum materials during the year. Some of the science curricula developed by the project staff were on the rain forest, weather, and leaf formation. Staff developed worksheets and class lessons appropriate to the needs of the project students. Project teachers also developed hands-on activities in science.

The project did not propose a specific objective for curriculum development.

PARENTAL INVOLVEMENT OUTCOMES

Project staff made strong efforts to inform project parents of their children's progress and needs. Monthly meetings were scheduled for parents to meet with teachers, and staff also held meetings in the evening for the convenience of parents.

At I.S. 44, parents participated in an after-school computer literacy program and in weekly E.S.L. sessions. Staff at this site also provided parent workshops on a variety of topics, including high school choices, E.S.L., and computer literacy. At J.H.S. 118 and I.S. 54, project parents participated in various workshops covering some of the same topics. They also attended Parent Visitation Day and monthly parent/teacher conferences.

The project proposed two parental involvement of objectives:

- By the conclusion of the parent development period, 150 parents of project LEP children will engage in activities that enable 70 percent of the parent participants to increase skills and knowledge in the areas in which they took instruction such as: E.S.L.; native language arts; high school equivalency; computer learning; home-based remediation and enrichment for students; how to make instructional materials from household items; basic intermediate and advanced conversational English for adults; and citizenship education as assessed by program-developed checklists administered on a pre- and post-instructional basis, as well as professional observations.

The project did not administer the required checklist to participating parents. The project director reported, however, that 70 percent of the parents who participated in the workshops offered by the project had increased their skills and knowledge as a result.

The project met the parental involvement objective for increased skills and knowledge, although the program did not administer the stipulated checklists. Last year, the project failed to meet this objective.

- By the conclusion of the parental development period, 150 parents of project LEP children will engage in activities that enable 15 percent of the parent participants to master skills sufficient for them to work as effective school volunteers as assessed by principal observation.

The project director reported that low parent attendance at the workshops precluded all but a few parents from becoming effective school volunteers. Of those parents who regularly attended parent activities, five percent became school volunteers. Project staff will attempt to involve parents more actively next year.

The project did not meet the parental involvement objective for school volunteers. Last year, the project also failed to meet this objective.

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

ACHIEVEMENT OF OBJECTIVES

Computer-based Junior High/Intermediate School Program of Transitional Bilingual Education met its objectives for E.S.L.; the content areas of science and computer use; staff development for staff completion of three college credits, use of transitional bilingual instructional methodologies, and enhanced English language instructional skills; and parental involvement for increased skills and knowledge. The project failed to meet its objectives for the content area of reading in English, staff development for completion of six college credits, and parents becoming effective school volunteers. OREA was unable to evaluate the objective for mathematics skills. The staff development objective for teacher performance could not be evaluated because project criterion-referenced tests had not been developed.

MOST AND LEAST EFFECTIVE COMPONENTS

Effective components included programming that allowed students to progress at their own pace and offered individualized computer education to students who would otherwise not have had access to it. The project's staff development activities produced a cohesive group of teachers who were better able to develop enriched programming.

RECOMMENDATIONS TO ENHANCE PROJECT EFFECTIVENESS

- Provide OREA with the necessary data to evaluate all objectives.
- Develop criterion-referenced tests in order to assess teacher performance.
- Increase efforts to involve parents in project activities and as school volunteers.

APPENDIX A

Instructional Materials for All Grades

E.S.L.

Title	Author	Publisher	Date
Skill Sharpeners	J. DeFilippo & C. Skidmore	Addison Wesley	1991
Great American Stories I & II	Draper	Prentice Hall	1985
Reading for Concepts A	Liddle	Phoenix Learning	1988
The Nest, The Trunk	Wildsmith, Brian	Oxford Univ. Press	1982
Odyssey Level 1-3	Kimbrough, Palmer & Byrne	Longman	1983
Felita	Nicholson & Moher	Bantam Skylark	1986
Language Development in the Content Area	A. Chamot	Addison Wesley	*
A Conversation Book - English in Everyday Life	Kasloff-Carver & Douglas-Fotinos	Prentice Hall	*
Achieving Competence in Reading and Writing	H. Christ	Amsco School Publications	*
Gathering Clouds Reading, Thinking, and Reasoning Skills Program	D. Barnes & A. Burgdorf	Steck-Vaughn Comp.	*
C-D-E- Vocabulary Connections	*	Steck-Vaughn Comp.	1985
Hopes an Dreams Series	David Lake	Fearon	1989
Five-Minute Thriller (Cassettes)	David Lake	Fearon	1988
Developing Writing Skills	*	Steck-Vaughn Comp.	*
Brainstorming	*	Steck-Vaughn Comp.	1993

* Project did not provide information.

Instructional Materials for All Grades, cont'd.

N.L.A.

Title	Author	Publisher	Date
Antologia Comunicativa	G. Arévalo	Editorial Norma	1988
Los Hijos de los Faraones	Emilio Salgari	Ediciones Orbis S.A.	1987
Literatura Moderna Hispánica	J. Gonzalez	National Textbook Co.	1988
La Gloria de Don Ramiro	E. Rodriguez	D.C. Heath & Co.	1966
Composicion	Dr. Joaquin Añoza	La Escuela Editora	1969
Escaparate	R. Santos	Dissemination & Assessment Center for Bilingual Education	1978
Ortografía Básica	J. Legorburu	Ediciones S.M.	*
Lecturas Para Hoy	*	Amsco School Publications	*
Lecturas Puertorriqueñas	G. Barlow	National Textbook Co.	*
El Barco de Vapor	*	Ediciones SM	*

* Project did not provide information.

Instructional Materials for All Grades, cont'd.

Mathematics

Title	Author	Publisher	Date
Matemática Practica	F. Parada	Editorial Voluntad	1989
Mathematics Around	*	Scott Foresman	1978
General Mathematics	Paul Anderson	Addison Wesley	1980
Holt Mathematics	Nichols, Andersen, Fennell, Flournoy, Hoffman, Kalin, Schluep, Simon	Holt, Rinehart, & Winston	*
New Progress in Mathematics	E. Ford	Sadlier Oxford	*
Mathematics Books 5,6	J. Diaz Cuhero	Lectorum	*
Invitation to Math	*	Scott Foresman	1985
Math Unlimited	*	Holt, Rinehart, & Winston	1987
New Progress in Math	R. McDonell	Sadlier Oxford	1983

Science

Title	Author	Publisher	Date
Descubrir 6,7	Sanchez, Talero, Miller, & DeBruno	Editorial Norma	1991
Holt General Science	Ramses, Gabriel, & McGuivk	Holt, Rinehart, & Winston	1983
Los Seres Vivientes	Heimer, Daniel, Lockard	Charles E. Merril Pub.	*
Earth Science	Danielson & Necke	McMillan Pub. Co.	*
Globe Life Science	M. Hicks	Globe Book Company	*
Introducción a las Ciencias Biologicas	Diaz & Cubero	Distribuidora Escolar	*
Physical Science-Concept Challenges	L. Bernstein	CEBU	*

* Project did not provide information.

Instructional Materials for All Grades, cont'd.

Social Studies

Title	Author	Publisher	Date
The World Past & Present	*	B. Javanovich	1990
Nueva Historia de los Estados Unidos	Baker, Hall, Linder, Selzer, Serran-Pagan	Minerva Books, LTD	1986
The Age of Greatness Since the Civil War	S. Shwats	Globe Book Co.	1979
We the People	Bidna, Groenberg, Spitz	Minerva Books	*
El Multicolor Mundo de las Razas	Herbert Pothorn	Editorial Everest	*
World Neighbors	*	McMillan Pub. Co.	1985
Norteamérica	*	Scott, Foresman, & Co.	1988
The New Exploring American History	M. Schwartz	Globe Book Co.	1991

* Project did not provide information.